

Interview Summary

Applicant thanks the Examiner for the courtesy of an interview held with the below-signed on February 8, 2007. The claims were not discussed specifically but the art including the assumed applicant admissions and the prior Oon application was discussed, with the under-signed expressing a view that the asserted art is not properly combinable nor does it teach each element of the invention. No agreement was reached, but the interview did serve to clarify the Office's position for the Applicant.

REMARKS

The Office Action dated August 15, 2006 has been carefully considered. In view of the foregoing amendments to the claims and the following remarks, it is submitted that the application is now in condition for allowance. The rejections stated in the Office Action are addressed below.

In overview, the present invention is specifically restricted to the specialist area of medical records. It is based on the novel idea of embodying a patient medical record in a computer language. Imagine wholly expressing one's medical history in Cobol, Pascal or in another actual computer language. In this instance it is in a medical scripting language wherein instructions actually embed executable embedded commands, while at the same time expressing the relevant medical information in accordance with predetermined syntactical and semantic constructs. By so expressing the patient medical information in a computer language, the applicant has solved the problem of interoperability of health data amongst a plurality of computer systems, as the integers of the health information actually contains the instructions for operation. None of the prior art relied on by the Examiner teaches a well-formed medical scripting language as clearly and specifically defined by the pending claims, and thus none of them, nor any combination of any of them, can be used to suggest the invention.

The Action contains erroneous assertions regarding the Extended Backus Naur Format that need to be addressed initially. *EBNF is not a scripting language* – it is simply a generic mathematical notation.

Moving to the specific rejections, the Office Action rejected claims 28-37 under 35 USC 103(a) as being unpatentable over five (5) pieces of art or alleged art including Johnson et al. (WO 96/41275), Liff (US 5,594,638), alleged applicant admissions, Oon (WO 97/48059), and Friedman (US 6182029). As discussed below, applicant submits that the claims are allowable over the cited art.

As recited in the claims, the patient medical records written in the medical scripting language include script instructions, each of which embeds executable commands while at the same time expressing the relevant medical information. By so expressing the patient medical records using a medical scripting language, this invention solves the problem of interoperability

of health data amongst a plurality of computer systems, as the health expressed in the medical scripting language actually contains the instructions for operation.

None of the prior art references relied upon by the Office Action teaches or suggests a medical scripting language, let alone the specifically recited system to use records defined in a medical scripting language. As a result, none of the references, or any combination of them, could render the claimed invention obvious.

The Office Action acknowledged that Johnson fails to teach medical records represented in said medical scripting language including script instructions that contain embedded commands but asserted that those missing claim elements were admitted to be known in applicant's specification at page 10, lines 22-25 and page 14, lines 16-21 of the specification. As to independent claim 33, the Office Action indicated that this claim was rejected for the same reason given in the rejection of claim 28, because it recites a method corresponding to the system of claim 28.

Applicant respectfully submits that the rejections are not supported, because (a) the specification does not contain any applicant admission regarding the medical scripting language as alleged in the Office Action, and (b) regardless of the prior point, there is nothing in the cited art, even the alleged admission, that teaches a medical scripting language including script instructions that contain embedded commands.

As to the first point, the Office Action stated: "On page 10, lines 22-25 of the specification, applicant admitted that the medical scripting language defined by Extended Backus Naur Format is well known as described in Programming in Modula-2" This is clearly a technically inaccurate reading of the words of the specification; the cited portion of the specification states:

The structure of medical scripting language is defined in Extended Backus Naur Format, this same EBNF format is used to express high level computer languages such as Modula (Programming in Modula-2 by Niklaus Wirth, spronger [sic] Verlag 1982) and Smalltalk (Smalltalk V, Digitalk Corporation 1992).

This statement clearly indicates that the medical scripting language is mathematically *defined in EBNF*, much the way that this Response is defined in English. The fact that English is well-known does not mean that every word of this Response was somehow preordained. And

the fact that the generic EBNF mathematical principles were known did not preordain a medical scripting language including script instructions that contain embedded commands.

As to the second point, the Office has not yet identified any piece of art that teaches a medical scripting language including script instructions that contain embedded commands. In short, Applicant earnestly challenges the Office to identify anywhere in the cited art, even the alleged admissions, any teaching of such a language, including an identification of what is alleged to correspond to the script instructions that contain embedded commands. Applicant respectfully submits that the art simply fails to teach this limitation.

Since none of the cited art teaches or suggests the specifically recited medical scripting language for recording and processing patient medical information, the Section 103 rejections of the claims are not supported for at least this reason, and the claims should be allowable.

Moreover, it is respectfully submitted that the prior art has been selectively pulled from nonanalogous arts to piece together the few pieces of the invention that could be found scattered among the arts. Johnson teaches an invention related to the problem space of "identifier key management and linkages" of medical records. It purports to solve the problems of multiple documents provided by multiple service providers to multiple patients who often have multiple health identifiers (see the 'Background of the invention' section). In essence, Johnson teaches a system and method which sets out to solve the problem of how to link a fragment of medical record with other fragments of medical records associated with the same patient, generated by other service providers. It does not provide any teaching with regard to the to-and-fro flow of patient data in a medical scripting language (as clearly defined in the claims of the current application).

Turning to Lliff, this document teaches a system and method of providing medical diagnostic and treatment advice over a telephone line connecting a patient with a telephone on one end and a computer system at the other end. The flow of medical information between the user and the computer system is human voice from user to computer and synthesized voice from computer to user. In essence, the Lliff invention is an expert system conducted over the telephone using voice recognition and synthesis. Lliff does not teach a medical scripting language to represent patient data for transmission, and certainly does not teach such a language in accordance with the essential features of the independent claims of the current application.

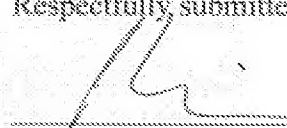
Turning now to Oon (WO 97/48059), this reference does not define a medical scripting language as defined by the current claims. This document concerns an invention involving a non-numeric medical spreadsheet, but does not teach medical scripting language to allow interoperability in healthcare.

Turning to Friedman, this reference teaches a system and method of parsing natural language as uttered by medical practitioners. The current application is not directly related to using natural language processing as a means to achieve interoperability among a plurality of computer systems. The output of Friedman's invention (see Figure 9) is such that key medical terms in a medical report expressed in natural language are highlighted if all these terms are linked together to support an underlying diagnosis. This subject matter can be seen as wholly irrelevant to the present invention. The processing of natural language is a 'hit-and-miss' affair, and as stated by Friedman is peppered with exceptions. It cannot therefore be used for computer-to-computer communication; encoding a patient file in natural language as taught by Friedman does not in any way relate to the problem of interoperability of health data amongst a plurality of computer systems.

Finally, it is noted that certain claims are written in 35 USC §112P6 format, and as such were treated incorrectly and should have been examined pursuant to MPEP 2181, rather than being treated as other claim formats.

Applicant respectfully submits that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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